

Amendment to the Specification:

Examples 10 -13: Preparation of Traction Fluid Composition

Traction fluid compositions listed below were prepared according to the following general method: Blends of the traction polyglycols and base stock traction fluids were prepared in the laboratory in graduated glass beakers. ~~Normally, t~~The base stock traction fluid was weighed into the beaker followed by the traction polyglycol in an amount to provide the desired final weight percent active. The mixture was heated and stirred to effect complete solution of the traction polyglycol in the base fluid. The order of addition of the traction glycol and base stock traction fluid is not important to the properties of the traction fluid composition obtained. The following traction fluid compositions were obtained using the above described preparation method:

Traction coefficients of the polyglycols and traction fluid compositions of the present invention as well as commercial traction fluids were measured in a “mini-traction machine” marketed by PCS Instruments. The machine ~~uses~~had a ball-on-flat arrangement. The ball and disc ~~are~~were independently driven by motors, allowing the entrainment speed, U and slide-roll ratio, SRR to be independently controlled. The tests ~~are~~were carried out in fully-flooded conditions with the test fluid covering the upper disc surface. Temperature ~~is~~was determined by an embedded thermocouple in the pot wall and heat loss ~~is~~was minimized by a PTFE casing around the pot and cover. Temperature ~~is~~was controlled to plus/minus 1 °C. A piezoelectric force transducer was used to measure the latteral frictional force generated within the contact. Its precision was approximately plus/minus 0.005 N up to greater than 10 N. Traction tests were carried out using a 19 mm diameter steel ball on flat steel disc contact. Both balls and discs ~~are~~were hardened AISI 52100 steel and had rms roughness for the balls of 8 mm and the discs 15 mm. A new ball and disc were used for each liquid tested. For each fluid, traction curves were obtained from a single fluid sample in the sequence: (I) 30 °C, (1 GPa, 1.25 GPa); (ii) 60 °C, (1 GPa, 1.25 GPa); (iii) 90 °C (1 GPa, 1.25 GPa); and (iv) 120 °C (1 GPa, 1.25 GPa). The fluid tested and traction coefficients measured are shown in Table 1 below.